Targeted M&A:

Strategies for Enhancing Profitability in a Low-Growth Chemical Industry

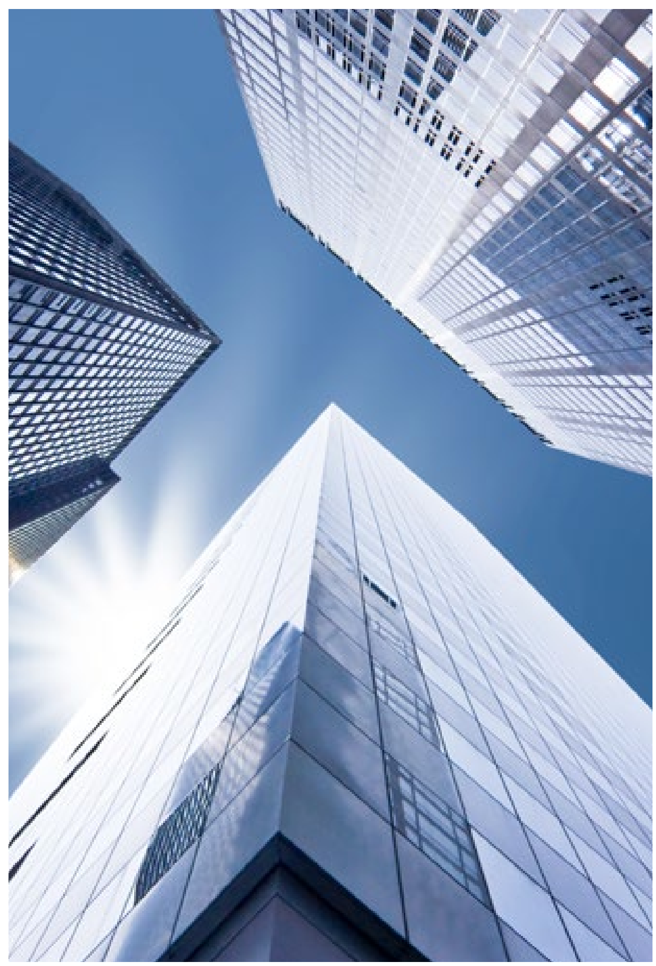
Merger and acquisition (M&A) activity is quite possibly the biggest strategic lever exploited by companies seeking to increase value generation, cost efficiencies, and market share. In the chemical industry, the motivation for M&A activity has changed dramatically with significant impacts on today's deals.

In the late 1990s through the early 2000s, most M&A transactions were designed to expand portfolios. Many of these deals gave chemical companies entrée into areas that were viewed as complementary, although they frequently brought with them non-core legacy businesses.

More often, companies purchased other firms and built mini-conglomerates to gain scale. Benefits accrued from the resulting increase in market presence. But often these deals were executed with no other compelling logic that would hold these organizations together over the long term. Hercules, Inc., a leading specialty chemicals supplier, gambled on huge acquisitions such as a $2.4 billion purchase of BetzDearborn in 1998. Only 10 years later, with significant debt that even a series of divestitures could not remedy, the nearly 100-year old Hercules was acquired by Ashland.

Hercules offers just one of many examples of M&A activity that failed to deliver the anticipated returns. By the late 2000s, many industry executives began to understand the perils of getting these deals wrong, and they adopted a more cautious approach. The pace of industry M&A activity slowed, especially during the years following the global financial crisis.

Today, with more than a half-decade of improving economics, the chemical industry finds itself in a low-growth environment. IHS estimates overall global petrochemical capacity grew at an average of 3.9% per year between 2010 and 2015, a drop from the previous five-year average of 5.9%. IHS forecasts average annual growth at 3.5% from now until 2020. This rate is slower than GDP growth over the same periods, from a multiple of 2.3 times GDP in the past to 1.5 times GDP today and a forecast of 1.1 times GDP in the next few years. This limits organic growth opportunities and is driving shareholders to seek alternative sources of growth and value.



Chemical Companies Challenged to Shape a Coherent Portfolio

In this weak environment, leading chemical companies have become more disciplined about M&A activities as a means to boost returns and enhance growth. Over the last three years, more deals have focused on supporting tactical and strategic portfolio management rather than simply expanding. Research from IHS Chemical reveals an increasing number of companies using M&A activity to enter new markets, which helps them grow the business without the inherent risk of greenfield projects. Some deals play to the existing strengths of an organization, with companies building out an existing area or acquiring firms in adjacent areas to strengthen the core business. Other enterprises combine smaller organizations, taking advantage of synergies that can build stronger organizations. Each of these approaches can help companies enhance earnings and market position. And when acquisitions include assets that are unlikely to deliver long-term positive impact, buyers quickly sell them off.

Activist shareholders are further encouraging M&A, demanding actions that improve returns. Activist hedge fund Trian Partners famously pressed DuPont to break up the company in an effort to address what it perceived as bloated corporate expenses, poor-performing acquisitions, and disappointing financial performance. Air Products cited shareholder value as a reason to spin off its Versum Materials division and sell another division to Germany's Evonik Industries for $3.8 billion earlier this year. Ashland's planned sell off of its Valvoline engine lubricants unit looks like a potential boon for investors, who may realize a 44% increase in shareholder value, according to one estimate.

Top-10 Recent Chemical Industry Deals

Top 10 announced chemical M&A deals by value, 2016 July YTD

Target	Acquirer	Seller	Deal size (US$ million)	Target sector
Syngenta	ChemChina	Syngenta	43,000	Ag/fertilizers
Airgas	Air Liquide	Airgas	13,400	Industrial gases
Valspar	Sherwin-Williams	Valspar	11,300	Specialties
Axiall	Westlake Chemical	Axiall	3,800	Basics
Air Products' performance materials business	Evonik Industries	Air Products	3,800	Specialties
Chemetall	BASF	Albemarle	3,200	Specialties
Nexeo Solutions Holdings	WL Ross Holding	TPG Capital	1,670	Distribution
Novacap	Eurazeo; Merieux Development	Ardian	784	Diversified
Nuplex Industries	Allnex; Advent International	Nuplex Industries	724	Specialties
BASF's industrial coatings business	AkzoNobel	BASF	531	Specialties

Excludes some transactions involving nonchemical assets.
Source: IHS Chemical Week research

Dow-DuPont Plans Merger and Split to Boost Value

To succeed in a low-growth economic environment while satisfying investor demand for higher returns, chemical companies must align around coherent, structured portfolios. Deliberate, targeted M&A activity can help enterprises realize this goal.

Chemical executives are on board. The merger of Dow and DuPont, announced in December 2015, is a prime example of this trend. This $130-billion mega-merger brings together two of the most prominent chemical makers in the United States. The deal was catalyzed by activist investors, who pressured both companies to conduct fundamental reviews of corporate structure and evaluate separation of certain business units.

Dow recognized the opportunity to bring value to Dow and DuPont investors in a broad merger – with a twist. After completing regulatory review, the deal is expected to close later in 2016. Executives plan to integrate the two companies into one, removing $1.5 billion in cost through the process. Approximately 18 to 24 months after the merger completes, the firm will separate into three companies that focus on:

- Agriculture, with approximately $16 billion in revenues
- Global material science, a $51 billion business
- Specialty advanced materials, the smallest with $12 billion in revenues

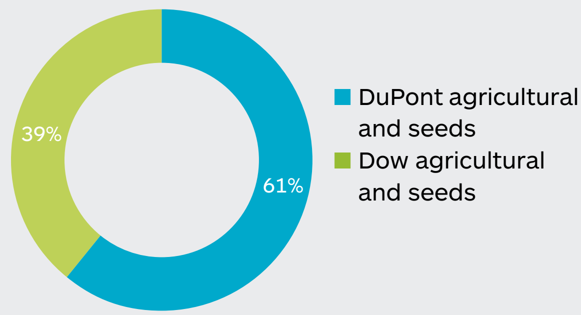
Although the scale of this deal is unprecedented, the proposed restructuring is surprising. (See figure.) Many merged companies spin off smaller businesses whose market or mission is a mismatch for the new conglomerate. Yet the plan to split the entire organization into three, almost from the start, is highly unusual.

Yet DowDuPont executives believe that splitting the enterprise into three will provide each company with enough critical mass, focus, and a leading position in its business segments to sustain itself for the future. DuPont will become a chemical maker for seed and crop production. Dow retains its integrated material science franchise. The specialty products business, which will create materials for safety and protection, nutrition and health, and electronic materials, benefits from strong application and formulation expertise as well as well-developed market channels.

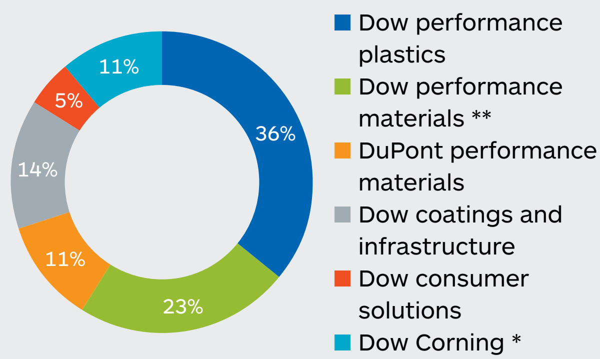
DowDuPont

(Segment revenues in billions of dollars) *

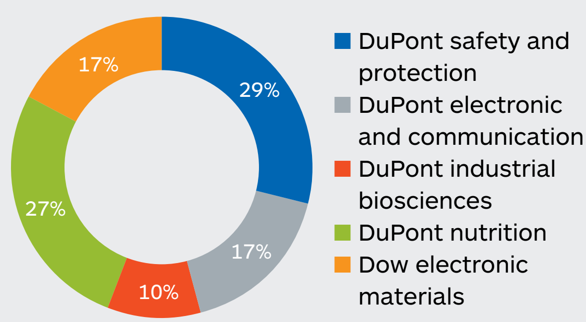
Agricultural and nutrition
(2015 revenue: $16.2 billion)



Material science
(2015 revenue: $51.1 billion)



Specialty products
(2015 revenue: $12.0 billion)



* Dow Chemical acquired 100% of Dow Corning on June 1. Business is expected to become part of material science spin off other than the electronics portion of the silicones business, which will become part of specialty products. Dow and Corning maintain their current equity stake in the Hemlock Semiconductor.

Figure. Projected Division of DowDuPont Companies

M&A-Fueled Business Growth Takes Many Forms

DowDuPont is not the only chemical industry leader using targeted M&A activity to create growth. For example, Air Liquide's acquisition of Airgas has brought together similar assets and removed considerable corporate cost. Today the company is focusing on best plays and seeking target areas with high growth and margin potential. A key benefit is Air Liquide's ability to expand its previously limited North American footprint with the acquisition of Airgas.

The merger between Sherwin-Williams and Valspar demonstrates targeted M&A activity designed to build on areas of common strength. In purchasing Valspar, Sherwin-Williams gains an enlarged presence in industrial coatings while reducing cost through consolidation. A further benefit is an increased presence in Europe and Asia for Sherwin-Williams.

Guidelines for Evaluating M&A Opportunities

IHS Chemical frequently helps companies assess the value of M&A opportunities. In providing these services, IHS Chemical has witnessed many examples of companies achieving growth through targeted M&A investments. By focusing on financially or structurally attractive segments, companies can bring together organizations with market overlaps, targeted adjacencies, and other synergies. Then they can carefully consolidate operations and remove cost, which helps them realize favorable earnings growth.

Our structured process includes a methodology designed to screen and evaluate acquisition targets. In this process, we assess qualifications such as:

- The fit of the target company with the acquiring company and its corporate strategy
- The attractiveness of the target organization in terms of market position, technology, and growth potential
- The feasibility of acquiring the selected target, considering how well it matches the acquiring company's investment criteria and the likelihood of the target being available for purchase

Structured Target Evalution: Example of Screening Criteria

Attractiveness
- Top line visibility
- Growth and profitability
- Cyclicality
- Portfolio differentiation
- Competitive position
- Technology maturity

Fit
- Strategic alignment
- Business model
- Portfolio adjacencies and synergies
- Competencies
- Necessary success factors

Feasibility
- Availability, cost and timing
- Ability to implement
- Deal complexity
- Resource requirements

The weighting of criteria depends on the buyer's strategy, core capabilities and ability to take on and absorb an acquisition. For example, a company with a history of successful product development may feel comfortable investing in a target which is still in the process of commercializing a novel process or product.

Another organization may seek only an established entity to add to its portfolio, one that can bring manufacturing, sales, or other efficiencies to the joint value proposition.

Enter the Dragon: Chinese Investment Shifts to Meet Changing Government Priorities

Chinese chemical companies are also pursuing more growth-related M&A activity, especially in the acquisition of European chemical firms. In 2011, for example, Wanhua acquired Hungarian chemicals maker BorsodChem. Late last year, China Petroleum & Chemical (Sinopec) completed a 10% purchase of SIBUR, Russia's largest gas processing and petrochemicals company.

Looking ahead, the objective of China's M&A activity is expected to evolve further. It is likely to be driven in part by the government's 2025 plan, which emphasizes the development of domestic capability in advanced technologies and materials. Because China's commodity chemicals industry is oversupplied and maturing, the industry's next step is likely to focus on acquiring new technology, know-how, and skills in higher-growth specialty chemicals and advanced materials.

Earlier this year, ChemChina agreed to purchase Swiss pesticide maker Syngenta, a $43-billion mega-deal that is expected to close later in 2016. ChemChina has also expressed interest in acquiring the performance products business of SGL Carbon, a German manufacturer.

Smaller recent activity includes China's National Silicon Industry Group (NSIG) offer for the silicon wafers of Finland's Okmetic Oy, Kingenta's acquisition of the German Compo Consumer fertilizer business, and the Xio Group's purchase of the Compo Expert slow-release and specialty fertilizer business.

Investment Discipline and Expertise Ground Decision-Making

M&A activity will increasingly act as a key lever that will help chemical companies achieve strategic growth. Recent activity has been high, driven by shareholder activism and supported by strong balance sheets, cheap debt, and readily available cash.

Emerging players are entering the market, opening opportunities to combine strengths in assets, know-how, and intellectual property with market access, particularly in Asia. Targeted M&A activities such as corporate carve-outs and divestments are increasingly a consequence of disciplined strategy implementation and portfolio management.

Industry players are aware that successful execution of M&A deals can create appreciable financial advantage and elevated industry position. With such high stakes, chemical companies must begin to develop a sophisticated and disciplined approach to transactions, so they can ensure their deals create long-term value.

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